

6550\_000072 Sequence Listing ST25 5-24-06.txt  
SEQUENCE LISTING

<110> Board of Trustees Operating Michigan State University  
Allison, Richard F.

<120> Expression of a Recombinant Transgene.

<130> 6550-000072/US/NPB

<140> US 10/561,720  
<141> 2005-12-22

<150> PCT/US04/21451  
<151> 2004-07-02

<150> US 60/485,073  
<151> 2003-07-03

<160> 15.

<170> PatentIn version 3.3

<210> 1  
<211> 26  
<212> DNA  
<213> Cowpea chlorotic mottle virus

<400> 1  
aagtggatcc cctcttgtgc ggctgc 26

<210> 2  
<211> 16  
<212> DNA  
<213> Cowpea chlorotic mottle virus

<400> 2  
actccaaaga gttctt 16

<210> 3  
<211> 835  
<212> DNA  
<213> Cauliflower mosaic virus

<400> 3  
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ccaagaaggt taaagatgca gtcaaaagat tcaggactaa ctgcatcaag aacacagaga 180  
aagatatatt tctcaagatc agaagtacta ttccagtatg gacgattcaa ggcttgcttc 240  
acaaaccaag gcaagtaata gagattggag tctctaaaaa ggtagttccc actgaatcaa 300  
aggccatgga gtcaaagatt caaatagagg acctaacaga actcgccgta aagactggcg 360  
aacagttcat acagagtctc ttacgactca atgacaagaa gaaaatcttc gtcaacatgg 420  
tgagacacga cacacttgtc tactccaaaa atatcaaaga tacagtctca gaagacaaaa 480  
gggcaattga gacttttcaa caaagggtaa tatccggaaa cctcctcgga ttccattgcc 540  
cagctatctg tcactttatt gtgaagatag tggaaaagga aggtggctcc taaaaatgcc 600  
atcattgcga taaaggaaag gccatcggtg aagatgcctc tgccgacagt ggtcccaaag 660

## 6550\_000072 Sequence Listing ST25 5-24-06.txt

atggaccccc acccacgagg agcatcgtgg aaaaagaaga cgttccaacc acgtcttcaa	720
agcaagtgga ttgatgtgat atctccactg acgtaagggg tgacgcacaa tcccactatc	780
cttcgcaaga cccttcctct atataaggaa gttcatttca tttggagaga acacg	835

<210> 4  
 <211> 581  
 <212> DNA  
 <213> Encephalomyocarditis virus

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gccggtgtgc gtttgtctat atgtgatttt ccaccatatt gccgtctttt ggcaatgtga	120
gggcccggaa acctggccct gtcttcttga cgagcattcc taggggtctt tcccctctcg	180
ccaaaggaat gcaaggctctg ttgaatgtcg tgaaggaagc agttcctctg gaagcttctt	240
gaagacaaac aacgtctgta gcgaccttt gcaggcagcg gaacccccca cctggcgaca	300
ggtgcctctg cggccaaaag ccacgtgtat aagatacacc tgcaaaggcg gcacaacccc	360
agtgccacgt tgtgagttgg atagttgtgg aaagagtcaa atggctctcc tcaagcgtat	420
tcaacaaggg gctgaaggat gcccagaagg taccctattg tatgggatct gatctggggc	480
ctcggtgac atgctttaca tgtgtttagt cgagggtaaa aaaacgtcta ggccccccga	540
accacgggga cgtgggtttc ctttgaaaaa cacgatgata a	581

<210> 5  
 <211> 581  
 <212> RNA  
 <213> Encephalomyocarditis virus

<400> 5	
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gccggugugc guuugucuau augugauuuu ccaccauauu gccgucuuuu ggcaauguga	120
gggcccggaa accuggcccu gucuucuuga cgagcauucc uaggggucuu ucccucucg	180
ccaaaggaau gcaaggucug uugaaugucg ugaaggaagc aguuccucug gaagcuucuu	240
gaagacaaac aacgucugua gcgaccuuu gcaggcagcg gaacccccca ccuggcgaca	300
ggugccucug cggccaaaag ccacguguau aagauacacc ugcaaaggcg gcacaacccc	360
agugccacgu ugugaguugg auaguugugg aaagagucaa auggcucucc ucaagcguau	420
ucaacaaggg gcugaaggau gcccagaagg uaccccauug uaugggaucu gaucuggggc	480
cucggugcac augcuuuaa uguguuuagu cgagguuaaa aaaacgucua ggccccccga	540
accacgggga cgugguuuuc cuuugaaaaa cacgaugaua a	581

<210> 6  
 <211> 581  
 <212> DNA  
 <213> Encephalomyocarditis virus

<400> 6	
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6550\_000072 Sequence Listing ST25 5-24-06.txt

ttttaacctc gactaaacac atgtaaagca tgtgcaccga ggccccagat cagatcccat	120
acaatggggg accttcttggg catccttcag ccccttggtg aatacgcttg aggagagcca	180
tttgactcct tccacaacta tccaactcac aacgtggcac tggggttgtg ccgcctttgc	240
aggtgtatct tatacacgtg gcttttggcc gcagaggcac ctgtcgccag gtgggggggtt	300
ccgctgcctg caaaggggtc ctacagacgt tgtttgtctt caagaagctt ccagaggaac	360
tgcttccttc acgacattca acagaccttg cattcctttg gcgagagggg aaagaccctt	420
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<210> 7  
 <211> 581  
 <212> RNA  
 <213> Encephalomyocarditis virus

<400> 7	
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acaauggggg accuucuggg cauccuucag ccccuuguug aaauacgcuug aggagagcca	180
uuugacucuu uccacaacua uccaacucac aacguggcac uggggguugug ccgccuuugc	240
agguguaucu uauacacgug gcuuuuggcc gcagaggcac cugucgccag gugggggguu	300
ccgcugccug caaagggucg cuacagacgu uguuugucuu caagaagcuu ccagaggaac	360
ugcuuccuuc acgacauuca acagaccuug cauuccuuug gcgagagggg aaagaccccu	420
aggaaugcuc gucaagaaga cagggccagg uuuccgggcc cucacauugc caaaagacgg	480
caauauggug gaaaauca uauagacaaa cgcacaccgg ccuuauucca agcggcuucg	540
gccaguaacg uuaggggggg gggagggaga ggggcggaau u	581

<210> 8  
 <211> 242  
 <212> DNA  
 <213> Cowpea chlorotic mottle virus

<400> 8	
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ggttttactc cttgaaccct tcggaagaac tctttggagt tcgtaccagt acctcacata	180
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cc	242

<210> 9  
 <211> 242  
 <212> RNA  
 <213> Cowpea chlorotic mottle virus

6550\_000072 Sequence Listing ST25 5-24-06.txt

<400> 9  
agugcccgcgcu gaagagcgguu acacuagugu ggccuacuug aaggcuaguu auaaccguuu 60  
cuuuuaacgg uaaucguugu ugaaacgucu uccuuuuaca agaggauuga gcugcccuug 120  
gguuuuacuc cuugaaccu acggaagaac ucuuuggagu ucuuaccagu accucacaua 180  
gugagguaau aagacuggug ggcagcgccu agucgaaaga cuaggugaug ucuaggaga 240  
cc 242

<210> 10  
<211> 242  
<212> DNA  
<213> Cowpea chlorotic mottle virus

<400> 10  
gggtctccta gagatcacct agtctttcga ctaggcgctg cccaccagtc ttattacctc 60  
actatgtgag gtactggtac gaactccaaa gagttcttcc gaagggttca aggagtaaaa 120  
cccaagggca gctcaatcct cttgtaaaaag gaagacgttt caacaacgat taccgtttaa 180  
agaaacgggtt ataactagcc ttcaagtagg ccacactagt gtaacgctct tcagcgggca 240  
ct 242

<210> 11  
<211> 242  
<212> RNA  
<213> Cowpea chlorotic mottle virus

<400> 11  
ggucuccuua gagaucaccu agucuuucga cuaggcgcuu cccaccaguc uuauuaccuc 60  
acuaugugag guacugguac gaacuccaaa gaguucuucc gaaggguuca aggaguaaaa 120  
cccaagggca gcucaauccu cuuguaaaag gaagacguuu caacaacgau uaccguuuua 180  
agaaacgguu auaacuagcc uucaaguagg ccacacuagu guaacgcucu ucagcgggca 240  
cu 242

<210> 12  
<211> 12  
<212> DNA  
<213> Artificial

<220>  
<223> Artificial sequence used to show antisense relationship of a gene  
and IRES to a promoter and viral 3' UTR

<220>  
<221> misc\_feature  
<222> (1)..(3)  
<223> n is a, c, g, or t

<400> 12  
nnncatggaa tt 12

<210> 13  
<211> 12

6550\_000072 Sequence Listing ST25 5-24-06.txt

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<212> DNA
<213> Artificial

<220>
<223> Complement of artificial sequence used to show antisense
      relationship of a gene and IRES to a promoter and viral 3' UTR

<220>
<221> misc_feature
<222> (10)..(12)
<223> n is a, c, g, or t

<400> 13
aattccatgn nn                                     12

<210> 14
<211> 12
<212> RNA
<213> Artificial

<220>
<223> Transcript of RNA polymerase

<220>
<221> misc_feature
<222> (1)..(3)
<223> n is a, c, g, or u

<400> 14
nnncauggaa uu                                     12

<210> 15
<211> 12
<212> RNA
<213> Artificial

<220>
<223> Complement of transcript of RNA polymerase

<220>
<221> misc_feature
<222> (10)..(12)
<223> n is a, c, g, or u

<400> 15
aaauccaugn nn                                     12

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